



The Great Block Heist

Grade 7 math · Place value, Rounding, Skip counting, Word problems, Division · Reading level grades 5-6

Detective: _____ **Date:** _____

The server's beautiful spawn town has been grieved! A mysterious figure broke into the town hall, stole the prized Nether Star, and flooded the library with lava. You are the server administrator, and you must hunt down the culprit using your redstone sensors, chat logs, and math skills.

1. Solve each math problem. The answer is a number, and the letter beside it is what that number stands for.
2. In the clue boxes, write that letter in every box showing the same number, then read the secret clue.
3. Use each clue to cross suspects off the list. The one suspect left at the end is the culprit!

My answer: the rogue griefer is _____

Possible suspects

Cross off a row as each clue rules it out. The one left at the end is the culprit.

NAME	PRIMARY TOOL	SURVIVAL ITEM	ATTACKING HAND	CHARACTER HAIR COLOR	GRIEFER WEAKNESS
Stampy	Diamond Pickaxe	Totem of Undying	Left-handed swing	Ender-purple hair	Milk bucket
Technoblade	Redstone Dust	Lava Bucket	Left-handed swing	Ender-purple hair	Smite enchantment
GamingWithJen	Elytra Glider	Lava Bucket	Right-handed swing	Steve-brown hair	Snowballs
Grian	Elytra Glider	Totem of Undying	Left-handed swing	Alex-orange hair	Snowballs
EthosLab	Elytra Glider	Water Bucket	Left-handed swing	Ender-purple hair	Smite enchantment
Alex	Elytra Glider	Lava Bucket	Right-handed swing	Alex-orange hair	Snowballs
Tubbo	Diamond Pickaxe	Water Bucket	Right-handed swing	Alex-orange hair	Milk bucket
SethBling	Diamond Pickaxe	Lava Bucket	Right-handed swing	Ender-purple hair	Milk bucket
FalseSymmetry	Netherite Sword	Water Bucket	Left-handed swing	Ender-purple hair	Milk bucket
Steve	Diamond Pickaxe	Water Bucket	Right-handed swing	Ender-purple hair	Milk bucket
MumboJumbo	Splash Potion	Golden Apple	Left-handed swing	Alex-orange hair	Milk bucket
Sapnap	Diamond Pickaxe	Lava Bucket	Left-handed swing	Steve-brown hair	Snowballs
CaptainSparklez	Elytra Glider	Ender Pearl	Left-handed swing	Ender-purple hair	Milk bucket
Ranboo	Diamond Pickaxe	Ender Pearl	Left-handed swing	Alex-orange hair	Milk bucket
PrestonPlayz	Netherite Sword	Totem of Undying	Right-handed swing	Alex-orange hair	Snowballs
Unspeakable	Netherite Sword	Lava Bucket	Left-handed swing	Ender-purple hair	Milk bucket
DanTDM	Splash Potion	Ender Pearl	Left-handed swing	Alex-orange hair	Milk bucket
Dream	Elytra Glider	Golden Apple	Left-handed swing	Ender-purple hair	Snowballs
LDShadowLady	Redstone Dust	Ender Pearl	Right-handed swing	Ender-purple hair	Snowballs
GeorgeNotFound	Redstone Dust	Water Bucket	Right-handed swing	Alex-orange hair	Smite enchantment
Iskall85	Elytra Glider	Water Bucket	Left-handed swing	Ender-purple hair	Milk bucket

CLUE 1

You find a corrupted terminal block in the server core. Looking at the block digit positions reveals a secret security code and our first major lead.

Solve each problem, then write its letter in every clue box that shows the same number.

What is the value of the 6 in 875,648? → **T**

What is the value of the 9 in 139,026? → **A**

What is the value of the 2 in 756,428? → **N**

What is the value of the 8 in 357,822? → **D**

What is the value of the 8 in 254,781? → **E**

What is the value of the 7 in 87,326? → **M**

What is the value of the 4 in 264,758? → **F**

What is the value of the 4 in 99,842? → **Y**

What is the value of the 3 in 82,835? → **I**

What is the value of the 4 in 698,415? → **0**

What is the value of the 2 in 652,999? → **S**

What is the value of the 1 in 271,946? → **G**

What is the value of the 1 in 377,182? → **V**

What is the value of the 3 in 858,386? → **H**

What is the value of the 8 in 38,606? → **U**

What is the value of the 3 in 23,578? → **L**

Scratch space:

CLUE 2

A chest in the storage room was raided. To quickly see what was lost, you must estimate the missing block counts to the nearest ten.

Solve each problem, then write its letter in every clue box that shows the same number.

Round 126 to the nearest ten $\rightarrow$ **T**

Round 7,332 to the nearest thousand → **E**

Round 748 to the nearest hundred → **S**

Round 374 to the nearest ten → **F**

Round 1,655 to the nearest hundred → **A**

Round 8,948 to the nearest thousand	→	L
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Round 1,128 to the nearest hundred → **W**

Round 1,325 to the nearest hundred → **G**

Round 433 to the nearest ten $\rightarrow$ **D**

Round 232 to the nearest hundred $\rightarrow$ **N**

Round 22 to the nearest ten $\rightarrow$ **V**

Round 3,175 to the nearest thousand → **R**

Round 227 to the nearest ten $\rightarrow$ **H**

Round 1,708 to the nearest thousand $\rightarrow$

Scratch space:

CLUE 3 Skip counting

A redstone clock is ticking in repeating pulses. Count the intervals of the repeaters to bypass the locking mechanism.

Solve each problem, then write its letter in every clue box that shows the same number.

F					F						F								
130	80	65	65	12	130	35	140	100	42	130	35	65	12	25	100	8	80	50	
24	28	18	50	65	10														

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, __, 140, 150 → **F**

Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, __, 45, 48 → **A**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, __, 90, 100 → **L**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, __, 30, 35 → **H**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, __, 20, 22 → **C**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, __, 30, 32 → **U**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, __, 150, 160 → **O**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, __, 55, 60 → **K**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, __, 40, 45 → **R**

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, __, 110, 120 → **M**

Skip-count by 3s. Fill the blank: 3, 6, 9, __, 15, 18 → **S**

Skip-count by 2s. Fill the blank: 2, 4, 6, __, 10, 12 → **I**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, __, 26, 28 → **B**

Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, __, 70, 75 → **E**

Skip-count by 2s. Fill the blank: 2, 4, 6, 8, __, 12, 14 → **T**

Scratch space:

CLUE 4

Word problems

You locate the villain's secret crafting bench. Working out the exact raw materials needed for their custom weapons unlocks their inventory log.

Solve each problem, then write its letter in the boxes to fill in the missing word.

A strand of E E E H A I hair turned up at the scene.

51 33 68 51 84 94 88 84 94 92 51 84

The miner found 39 ender pearls yesterday and 12 more today. How many ender pearls in all?

Answer: → E

There were 108 redstone repeaters. 14 were used up. How many redstone repeaters are left?

Answer: → P

The miner found 21 redstone repeaters yesterday and 67 more today. How many redstone repeaters in all?

Answer: → U

There were 94 glowstone dust. 2 were used up. How many glowstone dust are left?

Answer: → L

The miner lined up 3 rows of 11 redstone repeaters. How many redstone repeaters in all?

Answer: → N

There were 82 glowstone dust. 14 were used up. How many glowstone dust are left?

Answer: → D

The miner lined up 7 rows of 12 redstone repeaters. How many redstone repeaters in all?

Answer: → R

Scratch space:

CLUE 5**Division facts (1-12) - the last clue**

The thief tried to split their stolen diamonds equally into several hopper chests. Dividing the total loot exposes the final chest coordinate.

First solve each problem. Then find each answer in the numbered list below and cross that sentence out. One sentence will be left - that is exactly what the villain did!

Step 1 - solve these:

$4 \div 2 = \boxed{}$

$40 \div 8 = \boxed{}$

$9 \div 1 = \boxed{}$

$21 \div 7 = \boxed{}$

$40 \div 5 = \boxed{}$

$28 \div 4 = \boxed{}$

$24 \div 4 = \boxed{}$

$66 \div 6 = \boxed{}$

$44 \div 11 = \boxed{}$

$60 \div 5 = \boxed{}$

$6 \div 6 = \boxed{}$

Step 2 - cross out the sentence with each answer:

1. The villain throws a lingering splash potion of harming, then bites into a golden apple for quick health.
2. The villain swings a sharp netherite sword at the base defenses, then nullifies the fall damage with a water bucket.
3. The villain reloads a hidden tnt cannon with redstone dust, then nullifies the fall damage with a water bucket.
4. The villain throws a lingering splash potion of harming, then recycles their inventory using a totem of undying.
5. The villain swings a sharp netherite sword at the base defenses, then creates a burning defensive wall with a lava bucket.
6. The villain reloads a hidden tnt cannon with redstone dust, then creates a burning defensive wall with a lava bucket.
7. The villain soars from the world height limit using an elytra glider, then creates a burning defensive wall with a lava bucket.
8. The villain reloads a hidden tnt cannon with redstone dust, then teleports away instantly using an ender pearl.
9. The villain soars from the world height limit using an elytra glider, then nullifies the fall damage with a water bucket.
10. The villain soars from the world height limit using an elytra glider, then teleports away instantly using an ender pearl.
11. The villain mines through the obsidian wall with a diamond pickaxe, then creates a burning defensive wall with a lava bucket.
12. The villain mines through the obsidian wall with a diamond pickaxe, then bites into a golden apple for quick health.

Answer Key

The Great Block Heist

Culprit: CaptainSparklez

Elytra Glider · Ender Pearl · Left-handed swing · Ender-purple hair · Milk bucket

Trail: Start 21 → Clue 1 18 → Clue 2 11 → Clue 3 7 → Clue 4 4 → Clue 5 1

Clue 1 (Place value): "THE VILLAIN DOES NOT HAVE A TOTEM OF UNDYING"

What is the value of the 6 in 875,648? = 600 (T) · What is the value of the 9 in 139,026? = 9000 (A) · What is the value of the 2 in 756,428? = 20 (N) · What is the value of the 8 in 357,822? = 800 (D) · What is the value of the 8 in 254,781? = 80 (E) · What is the value of the 7 in 87,326? = 7000 (M) · What is the value of the 4 in 264,758? = 4000 (F) · What is the value of the 4 in 99,842? = 40 (Y) · What is the value of the 3 in 82,835? = 30 (I) · What is the value of the 4 in 698,415? = 400 (O) · What is the value of the 2 in 652,999? = 2000 (S) · What is the value of the 1 in 271,946? = 1000 (G) · What is the value of the 1 in 377,182? = 100 (V) · What is the value of the 3 in 858,386? = 300 (H) · What is the value of the 8 in 38,606? = 8000 (U) · What is the value of the 3 in 23,578? = 3000 (L)

Clue 2 (Rounding): "THE VILLAIN SWINGS WITH THEIR LEFT HAND"

Round 126 to the nearest ten = 130 (T) · Round 7,332 to the nearest thousand = 7000 (E) · Round 748 to the nearest hundred = 700 (S) · Round 374 to the nearest ten = 370 (F) · Round 1,655 to the nearest hundred = 1700 (A) · Round 8,948 to the nearest thousand = 9000 (L) · Round 1,128 to the nearest hundred = 1100 (W) · Round 1,325 to the nearest hundred = 1300 (G) · Round 433 to the nearest ten = 430 (D) · Round 232 to the nearest hundred = 200 (N) · Round 22 to the nearest ten = 20 (V) · Round 3,175 to the nearest thousand = 3000 (R) · Round 227 to the nearest ten = 230 (H) · Round 1,708 to the nearest thousand = 2000 (I)

Clue 3 (Skip counting): "FLEES FROM A FRESH MILK BUCKET"

Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, __, 140, 150 = 130 (F) · Skip-count by 3s. Fill the blank: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, __, 45, 48 = 42 (A) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, __, 90, 100 = 80 (L) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, __, 30, 35 = 25 (H) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, __, 20, 22 = 18 (C) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, __, 30, 32 = 28 (U) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, __, 150, 160 = 140 (O) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, __, 55, 60 = 50 (K) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, __, 40, 45 = 35 (R) · Skip-count by 10s. Fill the blank: 10, 20, 30, 40, 50, 60, 70, 80, 90, __, 110, 120 = 100 (M) · Skip-count by 3s. Fill the blank: 3, 6, 9, __, 15, 18 = 12 (S) · Skip-count by 2s. Fill the blank: 2, 4, 6, __, 10, 12 = 8 (I) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, __, 26, 28 = 24 (B) · Skip-count by 5s. Fill the blank: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, __, 70, 75 = 65 (E) · Skip-count by 2s. Fill the blank: 2, 4, 6, 8, __, 12, 14 = 10 (T)

Clue 4 (Word problems): "ENDER PURPLE HAIR"

The miner found 39 ender pearls yesterday and 12 more today. How many ender pearls in all? = 51 (E) · There were 108 redstone repeaters. 14 were used up. How many redstone repeaters are left? = 94 (P) · The miner found 21 redstone repeaters yesterday and 67 more today. How many redstone repeaters in all? = 88 (U) · There were 94 glowstone dust. 2 were used up. How many glowstone dust are left? = 92 (L) · The miner lined up 3 rows of 11 redstone repeaters. How many redstone repeaters in all? = 33 (N) · There were 82 glowstone dust. 14 were used up. How many glowstone dust are left? = 68 (D) · The miner lined up 7 rows of 12 redstone repeaters. How many redstone repeaters in all? = 84 (R)

Clue 5 (Division facts (1-12)): surviving statement is box 10 → CaptainSparklez

$4 \div 2 = 2$ · $40 \div 8 = 5$ · $9 \div 1 = 9$ · $21 \div 7 = 3$ · $40 \div 5 = 8$ · $28 \div 4 = 7$ · $24 \div 4 = 6$ · $66 \div 6 = 11$ · $44 \div 11 = 4$ · $60 \div 5 = 12$ · $6 \div 6 = 1$